



US Army Corps
of Engineers
St. Paul District

Information Paper

Environmental Protection: Mississippi River, Small Scale Drawdown, Buffalo, Wis



Lizzy Pauls Pond drawdown site, Buffalo City, Wisconsin.

Contact

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Location/Description

Part of the Corps' Environmental Management Program (EMP), a drawdown of a small backwater area on the Upper Mississippi River was proposed to reestablish aquatic plant species. Creation of impoundments on the Upper Mississippi River for navigation has arrested some river dynamics. The natural sediment transport of the river has been slowed during low to normal flow conditions and seasonal water level fluctuations have been reduced. This has increased backwater sedimentation and reduced germination of aquatic plant species. The project consisted of implementing a drawdown to permit germination of seeds in the bottom sediments. Potential sites of 5 to 200 acres in size in pools 3 through 10 were identified. Candidate sites were primarily shallow areas lacking emergent aquatic vegetation, having a flocculent substrate, and able to provide useful information about the impacts of a drawdown. Through a screening process, Lizzy Pauls Pond was selected. It is a 52-acre pond located within the Upper Mississippi River National Wildlife and Fish Refuge in pool 5 near Buffalo City, Wisconsin. The outlet of Lizzy Pauls Pond was closed to isolate the area and water was pumped out to simulate the lower natural summer water level conditions. Monitoring of pre- and post-drawdown conditions was done to document changes in vegetation and bottom sediments. Peck Lake at Blackhawk Park was also selected, but no non-Federal sponsor was available to cost share.

Status

A drawdown was implemented at Lizzy Pauls Pond in 1997. Although the desired level of drawdown was not achieved because of heavy rainfall and the natural bottom elevations of the pond, the vegetative response was good. A drawdown at Peck Lake was not pursued under EMP because no non-Federal sponsor was available, but was accomplished in 1998 and 1999 by the Natural Resources Section of the Corps of Engineers.

Authority

The Small Scale Drawdown Habitat Project at Lizzy Pauls Pond was implemented under the authority of the Upper Mississippi River System - Environmental Management Program (EMP) in accordance with Definite Project Report dated May 1997. The EMP was authorized by Section 1103 of the Water Resources Development Act of 1986, and reauthorized by the Water Resources Development Act of 1999.

The project was planned and implemented as part of a cooperative effort between the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Minnesota, Wisconsin, and Iowa Departments of Natural Resources, and local interests.

Fiscal

Project planning and implementation costs were 100 percent Federal because the project was located on national wildlife refuge lands. Since the project was a one-time effort, there are no operation and maintenance costs.

Federal Cost	\$97,000
Non-Federal Cost	\$0
Total Cost	\$97,000